

Amendments to the Claims

Please withdraw Claims 19-36. Please add new Claims 37-50. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1-18 (Cancelled).

19 (Withdrawn). A method for collecting user profiles of user attributes and device attributes to target consumers with promotions comprising:

collecting device attributes describing a network device;

assigning a globally unique identifier (GUID) to the network device in response to the device attributes collected;

customizing a registration query for the network device, the registration query requesting information about a user of the network device to be submitted;

generating a user profile of user attributes and device attributes from the information about the user of the network device submitted;

associating the user profile generated with one or more group profiles whose attributes match the user attributes and the device attributes of the user profile generated; and

targeting a consumer for a promotion using the one or more group profiles.

20 (Withdrawn). The method of claim 19 further comprising associating the user profile of user attributes and device attributes with the network device using the GUID assigned.

21 (Withdrawn). The method of claim 19 further comprising updating the user profile of user attributes and device attributes with the information about the user of the network device submitted.

22 (Withdrawn). The method of claim 19 wherein collecting includes receiving from the network device a registration request message containing a number of device attributes describing the network device.

23 (Withdrawn). The method of claim 19 wherein assigning includes retrieving the GUID from a pool of available GUIDs stored in a data store.

24 (Withdrawn). The method of claim 19 wherein assigning includes providing to the network device a registration response message containing the GUID assigned to the network device.

25 (Withdrawn). The method of claim 19 wherein customizing includes retrieving the device attributes and the user attributes from a data store to generate the registration query, the device attributes and the user attributes retrieved using the GUID assigned to the network device.

26 (Withdrawn). The method of claim 19 wherein customizing includes providing a registration page for a user of the network device to submit information about the user.

27 (Withdrawn). The method of claim 19 wherein associating includes adding the user profile of the network device to the group profile of other network devices in an event the network device and the other network devices share the same model number attribute.

28 (Withdrawn). A system for collecting user profiles of user attributes and device attributes to target consumers with promotions comprising:

- a data store adapted to store user profiles of user attributes and device attributes, attributes of group profiles, content, promotions, and a pool of available global unique identifiers;

- a system agent of a network device adapted to generate and transmit a registration request message, the registration request containing a number of device attributes describing the network device;

a system manager having an Application Programming Interface (API) configured for inter-process communications, the system manager adapted to:

- i) receive the registration request message from the system agent of the network device;
- ii) assign a globally unique identifier (GUID) to the network device in response to the registration request message received, the GUID assigned from the pool of available GUIDs stored in the data store;
- iii) generate and transmit a registration response message to the system agent of the network device, the registration response message containing the GUID assigned to the network device;
- iv) create the user profile of user attributes and device attributes, the user profile being associated with the network device using the GUID assigned and being created in a data store;
- v) retrieve from the data store the user profile of user attributes and device attributes associated with the GUID assigned to the network device and to update the user profile;
- vi) associate the user profile of user attributes and device attributes with a group profile whose attributes match the user attributes and the device attributes of the user profile;
- vii) target consumers for promotions using the group profile;

a management console adapted to:

- i) generate a registration page in response to an HTTP request for the registration page sent by the network device, the registration page being customized for the network device and being provided to a user of the network device for the user to submit information about the user;
- ii) interpret the information submitted by the user of the network device and make a call to the system manager to create the user profile of user attributes and device attributes with the information submitted, the user profile being associated with a GUID assigned to the network device and being created in a data store; and
- iii) make a call to the system manager to retrieve from the data store the user profile of user attributes and device attributes associated with the GUID assigned to the network device and update the user profile with the information submitted.

29 (Withdrawn). The system of claim 27 further comprising a web browser adapted to:

i) transmit the HTTP request for the registration page to a Uniform Resource Locator (URL) of the management console, the HTTP request includes the GUID assigned to the network device, thereby identifying the network device;

ii) display the registration page requested to the user for the user of the network device to submit information about the user, the information submitted being used to create and to update the user profile of user attributes and device attributes associated with the network device; and

iii) transmit the information submitted to the management console.

30 (Withdrawn). The system of claim 27 wherein the data store provides persistence to data stored such that the user profiles of user attributes and device attributes, the attributes of group profiles, the content and the promotions, and a pool of available global unique identifiers stored are not lost during a power outage.

31 (Withdrawn). The system of claim 27 wherein the system agent is a C++ object.

32 (Withdrawn). The system of claim 27 wherein the API of the system manager is a Microsoft® COM interface.

33 (Withdrawn). The system of claim 27 wherein the data store is a Microsoft® SQL database.

34 (Withdrawn). The system of claim 27 wherein the system manager adds the user profile of the network device to the group profile of other network devices in an event the network device and the other network devices share the same model number attribute.

35 (Withdrawn). The system of claim 27 wherein the information submitted by the user includes a name of the user, an address of the user, channels frequently watched by the user, one or more requests by the user for installation of optional value-add services and applications, a user's demographic information, and a user's personal information.

36 (Withdrawn). An apparatus for collecting user profiles of user attributes and device attributes to target consumers with promotions comprising:

means for collecting device attributes describing a network device;

means for assigning a globally unique identifier (GUID) to the network device in response to the device attributes collected;

means for customizing a registration query for the network device, the registration query requesting information about a user of the network device be submitted;

means for generating a user profile of user attributes and device attributes from the information about the user of the network device submitted;

means for associating the user profile generated with one or more group profiles whose attributes match the user attributes and the device attributes of the user profile generated; and

means for targeting a consumer for promotions using the one or more group profiles.

37 (New). A message router system for a server system that communicates with embedded devices over a data network, the router system comprising:

a router coupled to a message store;

a queue manager queuing messages from one or more server processes that are destined for a plurality of embedded devices, each of the messages being addressed to one of the embedded devices in the plurality of embedded devices with a unique identifier, the unique identifier being independent of any communication protocol;

the queue manager establishing a connection with the router and transferring the queued messages to the router;

for each message, the router determining a destination address according to a communication protocol by a database lookup using the unique identifier of the embedded device;

for each message, the router transmitting the message directly to the destination address of the embedded device over the data network regardless of whether the embedded device is active on the data network;

the router storing unacknowledged messages in the message store until corresponding ones of the plurality of embedded devices can accept the unacknowledged messages;

for each message, the router determining a message type, the message type indicating a quality of service the router provides for delivery of the message;

for each message, the router not waiting for an acknowledgment of receipt of the message if the determined message type indicates non-guaranteed delivery; and

for each message, the router waiting for an acknowledgment of receipt of the message if the determined message type indicates guaranteed delivery.

38 (New). A message router system as recited in Claim 37, further comprising a system manager that tracks activity states of embedded devices on the data network to determine whether the embedded devices are able to receive messages.

39 (New). A message router system as recited in Claim 38, wherein the router retrieves one or more of the unacknowledged messages from the message store when the system manager indicates that an embedded device to which the one or more unacknowledged messages are addressed is able to accept the one or more unacknowledged messages.

40 (New). A message router system as recited in Claim 37, further comprising a bulk data transfer manager for transferring bulk data between the server system and the embedded devices.

41(New). A message router system as recited in Claim 40, wherein the bulk data are transferred to the embedded devices by the router sending the embedded devices a message to download a file and a location of the file, the embedded devices contacting the bulk data transfer manager to obtain the file.

42 (New). A message router system as recited in Claim 41, wherein the embedded devices directly contact the bulk data transfer manager to obtain the file without sending a message via the router.

43 (New). The message router system as recited in Claim 37, wherein the messages are control messages directing the embedded devices to download, install, or activate content.

44 (New). A method for routing messages from a server system to embedded devices over a data network, the method comprising:

- queuing messages from one or more server processes that are destined for a plurality of embedded devices, each of the messages being addressed to one of the embedded devices in the plurality of embedded devices with a unique identifier, the unique identifier being independent of any communication protocol;

- for each message, determining a destination address according to a communication protocol by a database lookup using the unique identifier of the embedded device;

- for each message, transmitting the message directly to the destination address of the embedded device over the data network regardless of whether the embedded device is active on the data network;

- storing unacknowledged messages until corresponding ones of the plurality of embedded devices can accept the unacknowledged messages;

- for each message, determining a message type, the message type indicating a quality of service the router provides for delivery of the message;

- for each message, not waiting for an acknowledgment of receipt the message if the determined message type indicates non-guaranteed delivery; and

- for each message, waiting for an acknowledgment of receipt of the message if the determined message type indicates guaranteed delivery.

45 (New). A method as recited in Claim 44, further comprising tracking activity states of embedded devices on the data network to determine whether the embedded devices are able to receive messages.

46 (New). A method as recited in Claim 44, further comprising:

- detecting whether a previously unavailable embedded device is available to receive messages; and

retrieving stored messages for the embedded device and transferring the messages to the embedded device.

47 (New). A method as recited in Claim 44, further comprising transferring bulk data from the server system to the embedded devices.

48 (New). A method as recited in Claim 47, wherein the step of transferring the bulk data comprises:

 sending the embedded devices a message to download a file and a location of the file; and
 the embedded devices contacting a bulk data transfer manager to obtain the file.

49 (New). A method as recited in Claim 48, further comprising the embedded devices directly contacting the bulk data transfer manager to obtain the file.

50 (New). The method as recited in Claim 44, wherein the messages are control messages directing the embedded devices to download, install, or activate content.